CONTENTS

Number 1

E. G. HALLSWORTH, GWEN K. ROBERTSON, *and* F. R. GIBBONS. Studies in Pedogenesis in New South Wales. VII. The 'Gilgai' Soils 1

A. B. COSTIN. A Note on Gilgaies and Frost Soils 32

A. B. COSTIN. Alpine Soils in Australia with reference to Conditions in Europe and New Zealand 35

P. H. NYE. Some Soil-forming Processes in the Humid Tropics. II. The Development of the Upper-slope Member of the Catena 51

P. H. NYE. Some Soil-forming Processes in the Humid Tropics. III. Laboratory Studies on the Development of a Typical Catena over Granitic Gneiss 63

P. H. NYE. Some Soil-forming Processes in the Humid Tropics. IV. The Action of the Soil Fauna 73

J. W. MUIR. The Effect of Soil-forming Factors over an Area in the South of Scotland 84

W. A. MITCHELL. A Review of the Mineralogy of Scottish Soil Clays . 94

N. COLLIS-GEORGE. The Hydration and Dehydration of Na-Montmorillonite (Belle Fourche) 99

JANE MEIKLEJOHN. The Effect of Bush Burning on the Microflora of a Kenya Upland Soil 111

J. S. BUNT *and* A. D. ROVIRA. Microbiological Studies of Some Sub-antarctic Soils 119

J. S. BUNT *and* A. D. ROVIRA. The Effect of Temperature and Heat Treatment on Soil Metabolism 129

R. K. SCHOFIELD *and* A. W. TAYLOR. Measurements of the Activities of Bases in Soils 137

W. W. EMERSON. The Rate of Water Uptake of Soil Crumbs at Low Suctions 147

W. W. EMERSON. A Note on the Sodium Saturation Test for Determining the Cohesion of Moist Soil Crumbs 160

Number 2

J. P. QUIRK *and* R. K. SCHOFIELD. The Effect of Electrolyte Concentrations on Soil Permeability 163

A. J. LOW. Improvements in the Structural State of Soils under Leys . 179

J. W. HOLMES. Water Sorption and Swelling of Clay Blocks 200

C. L. W. SWANSON, A. RITCHIE, Jr., *and* H. A. DOEHNE. Coarse Particle Distribution in the Skeleton of Some Coarse to Medium-Textured Soils . 209

J. K. R. GASSER *and* C. BLOOMFIELD. The Mobilization of Phosphate in Waterlogged Soils 219

R. S. YOUNG. Solubility of Cobalt in Soil 233

H. H. MANN. Variation of Sulphur in Soils under a Continuous Grain Crop 241

G. W. COOKE *and* J. K. R. GASSER. Residual Effects of Phosphate Fertilizers on a Wealden Soil 248

CONTENTS. *Number* 2 (*continued*)

W. M. H. SAUNDERS *and* E. G. WILLIAMS. Observations on the Determination of Total Organic Phosphorus in Soils 254

A. B. COSTIN. A Note on Basalt Soils in Britain and Australia . . 268

T. W. WRIGHT. Profile Development in the Sand Dunes of Culbin Forest, Morayshire. I. Physical Properties 270

C. BLOOMFIELD. A Study of Podzolization. VI. The Immobilization of Iron and Aluminium 284

H. C. MOSS *and* R. J. ST. ARNAUD. Grey Wooded (Podzolic) Soils of Saskatchewan, Canada 293

R. HAMILTON. Soil Minerals of the Gold Coast 312

E. R. TURNER. The Reaction Between Bentonite and Certain Naturally-occurring Compounds 319

254
268
270
284
293
312
319